
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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LEAD IN NOVEMBER 1996

Primary refinery production increased by about 3%, and secondary refinery production decreased by about 2% in November. Total production of refined lead, primary plus secondary, through the first 11 months of 1996 was about 3% more than production in same period of 1995. Reported consumption in November increased by about 11% compared with that of consumption in October.

According to Platt's Metals Week published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price declined for the third consecutive month, decreasing by 0.65% and 3.41%, respectively, in November.

National Defense Stockpile cash disposal (sale) of lead in November 1996 was 1,879 metric tons (2,072 short tons). Sale of lead to date in fiscal year 1997 (October and November 1996) was 3,124 metric tons (3,444 short tons).

The Department of Housing and Urban Development (HUD) announced the availability of approximately \$2.5 million for grants or cooperative agreements for research on specified topics related to the evaluation and control of residential lead-based paint hazards. Up to 10 awards, ranging from \$100,000 to \$750,000, were to be issued on a competitive basis for applications received by the deadline of February 5, 1997. The Secretary of HUD was directed under the Residential Lead-Based Paint Hazard Reduction Act, Title X of the Housing and Community Development Act of 1992, to conduct such research in cooperation with other Federal agencies. Guidelines reflecting the Title X framework and describing state-of-the-art procedures for all aspects of lead-based paint hazard evaluation and control were published by HUD in June 1995. The targeted research and field experience are expected to result in modifications to the original Guidelines that will improve the accuracy of lead hazard evaluation and increase the effectiveness, while possibly reducing the cost, of lead hazard

control measures.¹

The Environmental Protection Agency (EPA) announced that its National Lead Laboratory Accreditation Program, mandated by the U.S. Congress in Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992, has been revised. The specific revisions are available in the document entitled "Laboratory Quality Systems Requirements (LQSR) Revision 2.0", dated August 1, 1996, and include expansion of the accreditation program to cover analysis for lead in field-operation laboratories and revised training requirements for laboratory personnel. A list of EPA-recognized laboratories is updated on a periodic basis and is available from the National Lead Information Center Clearinghouse upon request by calling 1-800-424-LEAD.²

Pasminco Metals, Melbourne, Australia, recently approved the required expenditures to upgrade its primary lead smelter at Port Pirie in South Australia. According to Pasminco, the upgrades will increase refined lead production to 250,000 tons annually from the current 220,000 tons annually. Construction at Port Pirie is scheduled to begin in April 1997 with completion expected by the fall of 1997. A portion of Port Pirie's concentrate will be derived from BHP Mineral's newly developed Cannington lead-zinc-silver mine, Queensland, Australia, beginning in 1998.³

Anvil Range Mining Corp., Toronto, Canada, has decided to temporarily suspend mining operations at its Faro lead-zinc mine, Yukon Territory, Canada, effective December 20, 1996. Anvil cited weak metal prices, the strengthening Canadian dollar, and production below budgeted levels as reasons for its decision. Stockpiled ore will continue to be processed at the mill during the first 3 months of 1997. Operations will continue to be reviewed during this period.⁴

Ireland's Arcon International Resources is on schedule to begin shipment of concentrates from its Galmoy zinc-lead mine

in County Kilkenny, Ireland, by early 1997. During the first 12 months of operation, Arcon expects to process about 500,000 tons of ore, increasing to full capacity of 715,000 tons in the second year. The average ore grade, zinc plus lead, at Galmoy is about 12%. According to an Arcon official, exploration is continuing at a site nearby to Galmoy, and a new zone of reserves has been discovered at Galmoy. The mill is expected to be able to handle all new reserves from the current exploration program.⁵

Sweden's Boliden AB reportedly is giving serious consideration to expanding its secondary lead smelter at Landskrona, Sweden. Currently about 3.5 million spent lead-acid batteries are processed annually at Landskrona, yielding 40,000 tons per year of lead and lead alloys. Should expansion be carried out as proposed, Boliden expects to increase its lead and lead alloy production to 50,000 tons annually by the year

2000.⁶

¹Federal Register. Fiscal Year 1996 NOFA for Research to Improve the Evaluation and Control of Residential Lead-Based Paint Hazards; Notice. (Department of Housing and Urban Development). V. 61, No. 230, Nov. 27, 1996, pp. 60499-60508.

²_____. National Lead Laboratory Accreditation Program (NLLAP); Notice of Availability of Revisions to the NLLAP. (Environmental Protection Agency). V. 61, No. 221, Nov. 14, 1996, pp. 58408-54809.

³Metal Bulletin. Pasminco Set to Upgrade Port Pirie Smelter. No. 8132, Nov. 25, 1996, p. 5.

⁴Platt's Metals Week. Anvil Range to Suspend Mining. V. 67, No. 47, Nov. 25, 1996, p. 8.

⁵Metal Bulletin. Galmoy Set to Ship First Ore in Early 1997. No. 8130, Nov. 18, 1996, p. 13.

⁶_____. Boliden Plans to Expand Landskrona Smelter. No. 8126, Nov. 4, 1996, p. 14.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1995 p/		1996		
	Year total	Jan. - Nov.	Oct.	Nov.	Jan. - Nov.
Production:					
Mine (recoverable)	384,000	353,000	35,200 r/	33,000	380,000
Primary refinery 2/	374,000	347,000	25,300	26,100	301,000
Secondary refinery:					
Reported by smelters/refineries	737,000	673,000	95,900	94,400	915,000
Estimated	193,000	176,000 r/	1,710	1,670	14,500
Recovered from copper-base scrap e/	15,000	13,800	1,250	1,250	13,800
Total secondary	945,000	863,000 r/	98,800	97,300	943,000
Stocks, end of period:					
Primary refineries 2/	XX	XX	7,060	7,830	XX
Secondary smelters and consumers	XX	XX	54,100	57,700	XX
Imports for consumption:					
Ore and concentrates (lead content)	2,590	2,590	2,510	NA	5,860 3/
Refined metal	264,000	244,000	31,600	NA	220,000 3/
Consumption:					
Reported	1,600,000 4/	780,000	107,000	119,000	1,120,000
Undistributed e/	--	478,000	39,700	44,000	415,000
Total	1,600,000 4/	1,260,000	147,000	163,000	1,540,000
Exports (lead content):					
Ore and concentrates	65,500	63,900	236	NA	44,100 3/
Materials excluding scrap	57,200	53,000	7,140	NA	89,000 3/
Ash and residues	8,040	6,980	3,320	NA	15,600 3/
TEL/TML preparations, based on lead compounds	3,210	2,800	59	NA	2,840 3/
Exports (gross weight): Scrap	105,000	96,200	6,270 5/	NA	71,200 3/ 5/
Platt's Metals Week North American producer price (cents per pound)	42.28	42.00	49.04	48.72	48.85

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Data from American Bureau of Metal Statistics, Inc. (ABMS).

3/ Includes data for January-October only; November data not available at time of publication.

4/ Includes annual data.

5/ Includes only non-battery scrap data.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1995:				
November	43.95	713.14 r/	456.41	1.562476
Average Jan. - Nov.	42.00	621.38 r/	393.01	1.581601
Year average	42.28	630.53	399.53	1.578176
1996:				
August	49.59	815.23	525.99	1.549882
September	49.57	795.96	510.47	1.559290
October	49.04	741.48	467.42	1.586314
November	48.72	716.18	430.83	1.662311
Average Jan. - Nov.	48.85	781.64	504.25	1.552315

r/ Revised.

Source: Platt's Metals Week.

TABLE 3
MINE PRODUCTION OF RECOVERABLE LEAD IN THE UNITED STATES 1/

(Metric tons)

	1995 p/		1996		
	Year total	Jan. - Nov. r/	Oct.	Nov.	Jan. - Nov.
Missouri	290,000	328,000 2/	33,400 r/ 2/	31,200 2/	353,000 2/
Other States 3/	93,900 2/	24,000	1,810	1,750	26,300
Total	384,000	352,000	35,200 r/	33,000	380,000
Daily average 4/	1,050	1,050	1,140 r/	1,100	1,130

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Alaska.

3/ Includes Colorado, Idaho, Montana, and New York.

4/ Based on number of days in period without adjustment for Sundays or holidays.

TABLE 4
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN NOVEMBER 1996 1/

(Metric tons, gross weight)

Item	Stocks Oct. 31, 1996	Net receipts	Consumption	Stocks Nov. 30, 1996
Battery-lead	39,600	106,000	107,000	39,200
Soft lead	W	W	W	W
Drosses and residues	1,210	4,020	3,880	1,350
Other 2/	1,440	3,010	3,600	850
Total	42,200	113,000	114,000	41,400
Percent change from preceding month	--	-5.0	-4.6	-1.8

W Withheld to avoid disclosing company proprietary data; included in "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 5
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE
SCRAP IN NOVEMBER 1996 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	48,200	--	--
Remelt lead	W	W	W
Antimonial lead	41,200	11	W
Other 2/	W	W	--
Total lead-base	94,400	32	543

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	1995		1996		
	Jan. - Dec.	p/ 2/ Jan. - Nov.	Oct.	Nov.	Jan. - Nov.
Metal products:					
Ammunition-shot and bullets	70,900	49,400	2,260	1,200	34,900
Brass and bronze-billet and ingots	8,860	5,630	524	511	5,620
Cable covering-power and communication and calking lead-building construction	6,580	5,140	647	676	6,130
Casting metals	18,100	W	162	118	1,360
Pipes, traps, and other extruded products	2,210	832	(3/)	(3/)	(3/)
Sheet lead	27,900	10,200	675	762	8,700
Solder	16,200	5,640	457	402	5,200
Storage batteries, including oxides	1,360,000	649,000	101,000	114,000	1,040,000
Terne metal, type metal, and other metal products 4/	11,700	5,820	213	187	3,700
Total metal products	1,520,000	732,000	106,000	118,000	1,110,000
Other oxides	61,700	41,200	(5/)	(5/)	(5/)
Miscellaneous uses including gasoline additives	21,900	6,990	913 r/	833	12,700
Total reported	1,600,000	780,000	107,000	119,000	1,120,000
Undistributed consumption e/	--	478,000	39,700	44,000	415,000
Grand total	1,600,000	1,260,000	147,000	163,000	1,540,000

e/ Estimated. p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Terne metal, type metal, and other metal products."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes annual data.

3/ Withheld to avoid disclosing company proprietary data; included in "Sheet lead."

4/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

5/ Withheld to avoid disclosing company proprietary data; included in "Miscellaneous uses including gasoline additives."

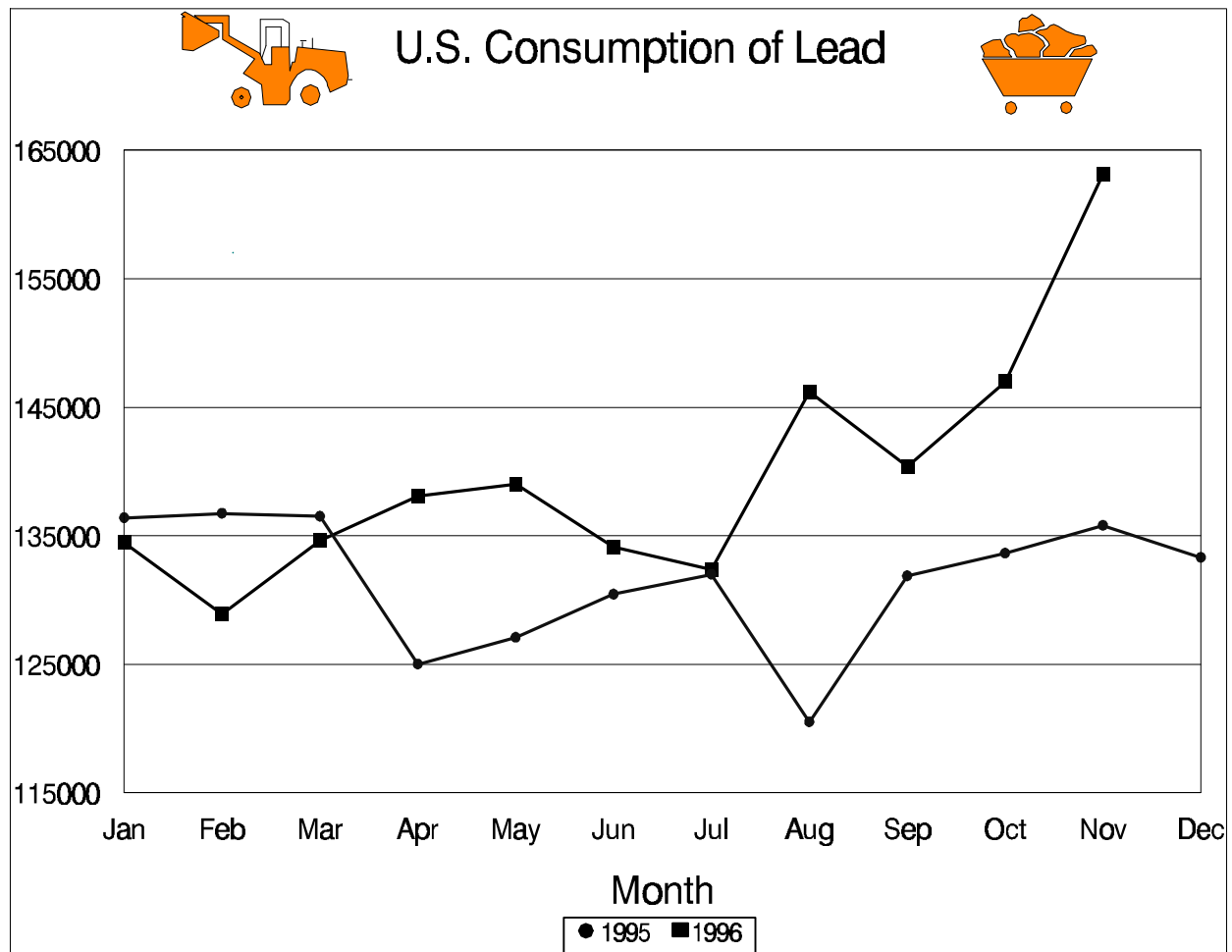


TABLE 7
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD IN NOVEMBER 1996 1/

(Metric tons, lead content)

Type of material	Stocks Oct. 31, 1996	Net receipts	Consumption	Stocks Nov. 30, 1996
Soft lead	17,900	74,000	72,700	19,200
Antimonial lead	32,000	28,800	26,500	34,400
Lead alloys	W	19,500	19,500	W
Copper-base scrap	W	418	418	W
Total	54,100	123,000	119,000	57,700

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 8
CONSUMPTION OF LEAD BY CLASS OF PRODUCT AND
TYPE OF MATERIAL IN NOVEMBER 1996 1/

(Metric tons, lead content)

Class of product	Soft lead	Antimonial lead	Lead alloys	Copper-base scrap	Total
Metal products	72,100	26,500	19,500	418	118,000
Other oxides 2/	W	--	--	--	W
Miscellaneous uses	601	W	W	--	601
Total	72,700	26,500	19,500	418	119,000

W Withheld to avoid disclosing company proprietary data; included in "Metal products."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes ceramic products, glass, other pigments and chemicals, and paints.

TABLE 9
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1995		1996		
	Year total	Oct.	Sept.	Oct.	Jan. - Oct.
Lead content:					
Ore and concentrates	65,500	1,330	7,890	236	44,100
Materials excluding scrap	57,200	4,610	9,350	7,140	89,000
Ash and residues	8,040	1,870	1,900	3,320	15,600
TEL/TML preparations, based on lead compounds	3,210	117	795	59	2,840
Total	134,000	7,930	19,900	10,800	152,000
Gross weight: Scrap	105,000	10,900	7,070 2/	6,270 2/	71,200 2/ 3.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes only non-battery scrap data.

3/ Includes data for January-October only; November data not available at time of publication.

Source: Bureau of the Census.

TABLE 10
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1995 p/		1996			1995 p/		1996		
	Year total	Jan. - Oct.	Sept.	Oct.	Jan. - Oct.	Year total	Jan. - Oct.	Sept.	Oct.	Jan. - Oct.
Ore, matte, etc.:										
Australia	1,480	1,480	--	--	--	--	--	--	--	--
Bolivia	759	759	--	35	317	--	--	--	--	--
Canada	106,000	55,000	29,600	29,900	304,000	--	--	--	1,850	4,220
Mexico	2,380	2,380	--	658	2,330	2,380	2,380	--	658	1,520
Peru	12,800	11,300	332	728	12,600	88	88	--	--	--
Other	984	984	--	--	133	126	126	--	--	122
Total	124,000	72,000	30,000	31,400	319,000	2,590	2,590	--	2,510	5,860
Base bullion:										
Mexico	31	28	--	5	5	31	28	--	5	5
Total	31	28	--	5	5	31	28	--	5	5
Pigs and bars:										
Belgium	25	25	11	--	11	25	25	11	--	11
Bulgaria	1,910	1,910	--	--	--	1,910	1,910	--	--	--
Canada	182,000	150,000	16,400	24,500	156,000	182,000	150,000	16,400	24,500	156,000
Germany	3,140	3,010	13	79	226	3,140	3,010	13	79	226
Mexico	54,300	46,400	7,310	5,950	47,700	54,300	46,400	7,310	5,950	47,700
Netherlands	42	42	--	--	--	42	42	--	--	--
Peru	22,100	16,300	700	700	15,600	22,100	16,300	700	700	15,600
Sweden	5	5	--	--	--	5	5	--	--	--
United Arab Emirates	210	199	10	10	130	210	199	10	10	130
United Kingdom	128	128	--	19	19	128	128	--	19	19
Venezuela	364	364	--	--	--	364	364	--	--	--
Other	242	242	36	375	715	242	242	36	375	715
Total	264,000	218,000	24,500	31,600	220,000	264,000	218,000	24,500	31,600	220,000
Reclaimed scrap, including ash and residues	75	66	--	21	192	75	66	--	21	192
Grand total	388,000	290,000	54,500	63,000	539,000	267,000	221,000	24,500	34,100	226,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.